

# GoddardView

Volume 9 Issue 7  
June 2018

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## THE WEEKLY



### Attention to Detail

It is likely that one of your managers or supervisors has mentioned the importance of doing a thorough job. Launching a successful mission requires everyone to do an excellent job and to pay attention to the details. But what is attention to detail, and why is it something you should practice? Click on the picture to learn more.

### MMS Achieves Major Milestone

The MMS team completed its first comprehensive performance test on observatory number one, an indication that no significant issues were encountered. This summer, they expect to start environmental testing. To further explore MMS, click on the image.

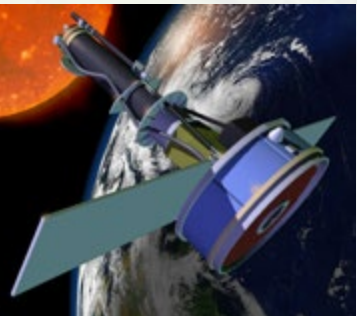


### LRO: Four Years in Orbit

NASA's Lunar Reconnaissance Orbiter, in orbit around the moon for four years, has forever changed our view of our nearby neighbor. LRO launched on June 18, 2009 from Florida. LRO has brought the world astounding views of the lunar surface and exciting science results. Discover LRO by clicking on the image.

### IRIS Launch—June 26

The Interface Region Imaging Spectrograph is scheduled to launch Wednesday, June 26 at 10:30 p.m. EST aboard an Orbital Pegasus XL rocket from Vandenberg AFB in California. To watch the launch, tune to NASA TV or check out the NASA IRIS [mission page](#).



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**On the cover:** DeafBlind camper experiences the Goddard Visitor Center.

Photo credit: NASA/Goddard/Debora McCallum

## GoddardView

*Goddard View* is an official publication of NASA's Goddard Space Flight Center. *Goddard View* showcases people and achievements in the Goddard community that support Goddard's mission to explore, discover, and understand our dynamic universe. [Goddard View](#) is published weekly by the Office of Communications.

News items for publication in *Goddard View* must be received by noon Wednesday of each week. You may submit contributions to the editor via e-mail at [john.m.putman@nasa.gov](mailto:john.m.putman@nasa.gov). Ideas for new stories are welcome but will be published as space allows. All submissions are subject to editing.

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## A TACTILE TOUR OF GODDARD

By: Talya Lerner

**G**oddard hosted some 100 campers and volunteers from the DeafBlind Camp of Maryland on June 12, 2013.

The camp, based in West River, Md., was established in 1998 to provide a safe, fun, barrier-free week for people who have significant hearing and vision loss. Camp leaders requested the tour to highlight their theme this year: "Out of this world."

The event started at Goddard's Visitors Center, where the campers, aged 18 to 80, learned about space and NASA missions. The crowd favorite was touching the rockets in the Goddard Rocket Garden.

"This is a beautiful experience," said 61-year-old camper Betsy Wohl.

Their tour continued with an atrium full of hands-on activities in Goddard's Building 28. Campers could spin a model centrifuge, try on space gear and even operate power tools.

Paige Green was one of the many camp volunteers who helped Goddard scientists and outreach specialists communicate with the campers. "It helps them visualize when they can touch," Green said. Her camper, Martin Greenberg, was excited not only by touching a rocket but also by actually going inside a capsule.

Many of the Goddard employees who are proficient in sign language came to talk with campers. "It is inspirational for them to see workers here who are deaf or blind, especially at NASA," volunteer Tyler Herron said.

Ishon Prescott, an education and public outreach specialist with the Hubble project, said it was amazing to see everyone's faces light up with joy when they were touching and learning about the spacesuit on his table.

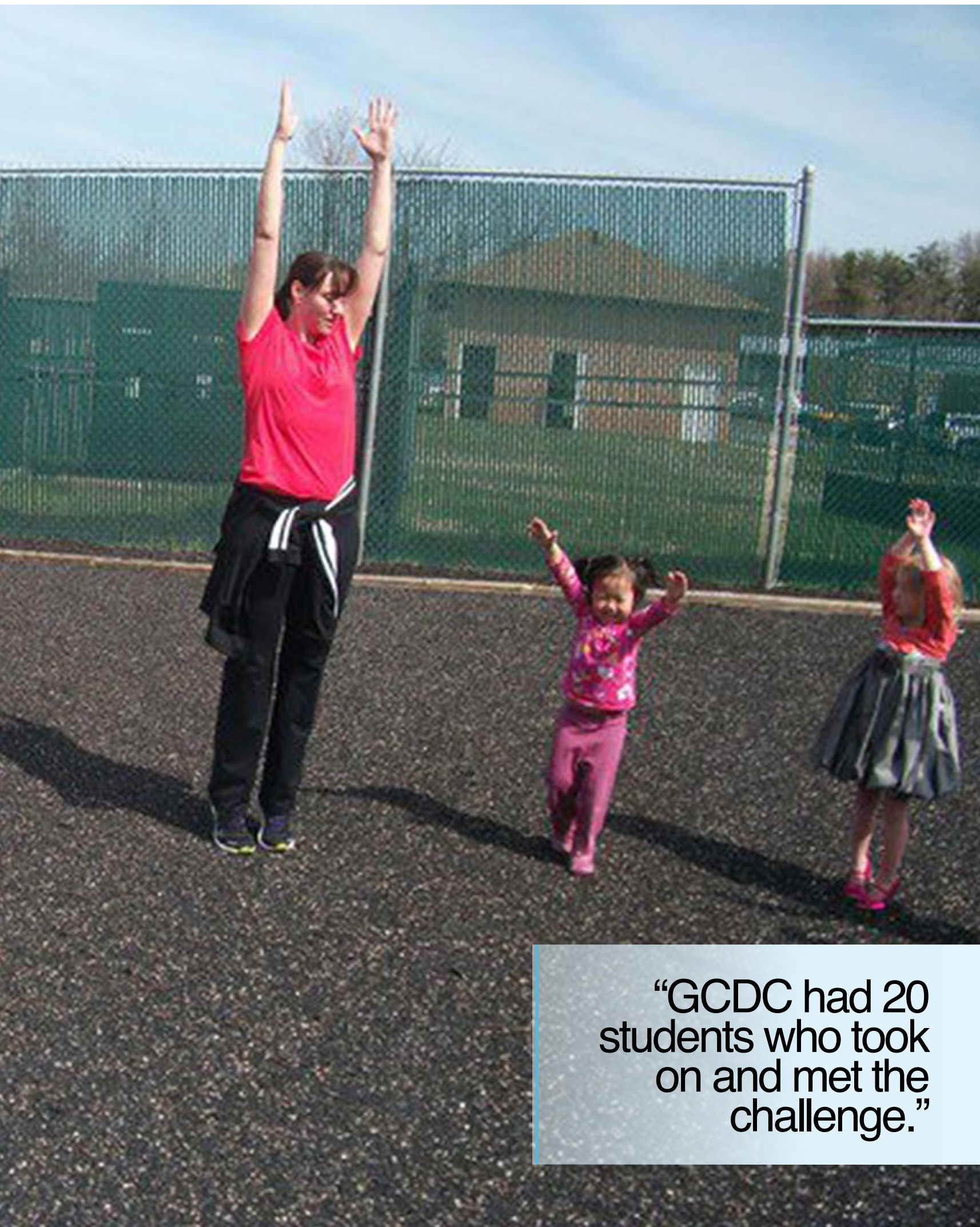
Astronauts Scott Altman and Piers Sellers addressed the group and described their experiences so the campers could imagine what it was like to be in space.

DeafBlind Camp of Maryland's director, Brenda Talley, said, "I applaud NASA because everything here is tactile and accessible for the campers."

Camper Andy Stender agreed saying through an interpreter that he really enjoyed touching the uniforms, toys and rockets. He said that someday, "I want to touch the real moon."

Above: A DeafBlind camper touches one of the rockets in the Goddard Rocket Garden. Photo credit: NASA/Goddard/Debora McCallum





“GCDC had 20 students who took on and met the challenge.”



# READY, SET, LET’S MOVE

By: Shamara Thornton

The Maryland State Department of Education has recognized the [Goddard Child Development Center](#) for offering early childhood programs that promote healthy living through its Health and Wellness Recognition. Thanks to several of its programs and activities focused on healthy eating and physical activity, the center is able to help build a foundation the children can use to live healthy lives, a criteria used in granting a center this recognition.

Goddard Child Development Center director Syretha Storey said the center employees ensure the children stay healthy through several key factors, including having an onsite food service manager prepare nutritious meals. “Not only do we offer healthy snacks, we seek to expose our students to a variety of foods,” Storey said. “It’s a common occurrence for students and parents to be greeted by the smell of fresh baked bread in the morning or the warming smells of homemade soups in the afternoon. We ensure the meals are prepared using the freshest ingredients and that fruits and vegetables are a staple in the children’s diet.”

In addition to eating healthy on a regular basis, the children also take part in physical activities. Every year, the children participate in the Goddard Running and Orienteering Club and Goddard Fitness Center’s Spring Fun Run, which helps the students understand the importance of physical fitness in a fun way. All students have the opportunity to take part in the run at one of three age-dependent levels, allowing them to participate at a pace that works for them.

Goddard Fitness Center fitness specialist Janese Lewis-Blanc said it’s important to introduce physical activity and healthy behaviors to children as early as two years old. “Physical activity is an important factor in the development of motor skills, social behavior and emotional behavior,” Lewis-Blanc said. “Children who are encouraged to be physically active are more likely to develop lifelong healthy habits.”

Storey said with the help of parent volunteers, the students were able to train for the event throughout the year by participating in different exercises. Some Goddard employees came in to help the children practice exercises like tai chi, soccer,

yoga and Pilates. Some classes even used tools like the Wii Fit in an effort to make exercise fun for students.

In addition to the healthy eating and physical activities the center offers its students every year, this year pre-kindergarten and kindergarten students had the opportunity to be recognized by the President of the United States for their exercise activities outside of school.

To earn this Presidential Champions Award, parents tracked their child’s activities for three months, allowing the children to accumulate points for activities like riding bicycles, swimming or playing at the park. The points students earned were combined with points from their participation in routine health and fitness activities at the center.

The results from this healthy challenge were encouraging, with 20 students earning the number of points needed to earn the award, which the president will sign.

Storey said the point of the competition and the daily nutrition and fitness routines is to instill in the children the importance of leading healthy lives, a message the center will continue to deliver to its students.

“Our primary goal is expose them to a variety of fun ways to exercise in hopes that our students will find something they really enjoy and will stick with it,” Storey said. “We want our students to incorporate health and fitness into their daily routine as they grow.”

Through the collective efforts of teachers, parents and community volunteers, GCDC had 20 students who took on and met the challenge of earning the President Champions Bronze Award. ■

Opposite: Janese Lewis-Blanc from the Goddard Fitness Center helps pre-kindergarten and kindergarten students get ready for the fun run. Photo credit: Goddard Child Development Center

Above: GCDC student with their Presidential Champions awards. Photo credit: Goddard Child Development Center





# DIVERSITY AND INCLUSION TOWN HALL

By: Kevin McLaughlin

“Inclusion always leads to innovation.” This was Deputy Director Rick Obenschain’s message to Goddard employees at the first Goddard Diversity and Inclusion Town Hall on May 30, 2013. The Diversity and Inclusion Committee sponsored the center-wide event, which featured a question and answer session and tables from the Inclusion Ally initiative, advisory committees, and directorate representatives. An estimated 200-plus employees attended the event, both in person and via videoconference from the Wallops and IV&V facilities.

Obenschain and Deputy Director Christyl Johnson opened by addressing the importance of diversity and inclusion at Goddard. Obenschain, the Center Senior Champion for D&I, said that NASA’s commitment to these issues has been integral in its ranking as one of the best places to work in the federal government. He added that he believes the reason people come to work at Goddard and stay “almost forever” is because at Goddard, “everybody is respected, everybody’s views are sought, and everybody’s views are listened to.”

Johnson, as Senior Champion for “i am goddard,” introduced the newly formed Inclusion Ally initiative. Johnson explained that “i am goddard” was implemented in an effort to convey the concept that every Goddard employee is a vital component of the organization. According to the “i am goddard” white paper, this means regardless of “culture, race, ethnicity, gender, ability, sexual orientation, age, religion, or other non-work related attributes.”

The Inclusion Ally initiative is a response to the success of “i am goddard.” Inclusion Ally hopes to raise awareness of

the important role allies play in building a more inclusive workplace, reminding employees that you can support a community without being a member yourself.

As a supplement to the Inclusion Ally introduction, Diversity and Inclusion Program Manager and event moderator Dan Krieger read a letter from Wallops Range and Mission Management Office Chief Jay Pittman titled “Who is your ally?”

In the letter, Pittman writes, “Step out of your comfort zone. Find out how you can be an ally in support of your co-workers who are different than you. You, as unique as you are, may even find that one of your co-workers might be willing to be your ally too.”

The future of the initiative will include directorate road shows to spread the message and a wall of fame to recognize those that embrace the initiative’s ideals.

After Johnson and Obenschain concluded their remarks, Krieger opened the floor to questions. Many people took this opportunity to express their appreciation for the event and its message. Others raised concerns about diversity in regards to age and seniority, asking what can be done about the lack of diversity among senior staff in comparison to new hires.

Matt Ritsko, financial manager and member of the New and Developing Professionals Advisory Committee, believes that this issue will be a challenge in a workforce that, for the first time ever, consists of five different generations with five very different perspectives.

Once the question and answer portion concluded, the audience was encouraged to explore the auditorium and visit tables for information on the Inclusion Ally initiative, the nine different advisory committees available at Goddard, and directorate efforts in diversity and inclusion.

Assistant Director Donna Swann is the Lead for the Code 400 Diversity and Inclusion Committee. She and other directorate representatives used the event as an opportunity to advertise their committees and recruit new members. Swann hopes that events like these help people realize that diversity and inclusion “isn’t an addition to your job, it is part of your job.”

Bob Lutz, a computer engineer and member of the LGBT Advisory Committee, says that Goddard has come a long way since the committee was formed a decade ago. Then, the committee was met with negativity and members were even sent hate mail. Today, because of events like the town hall, Lutz has full confidence that when management says that they are “intolerant of intolerance,” they mean it. “You can’t get away with it here at Goddard,” said Lutz.

Teresita Smith, a contract specialist in Code 210, appreciated the town hall format because of the direct communication it allowed between employees and upper management. “The message is being lost as it comes down,” said Smith.

But now she is assured that upper management does care about diversity and inclusion and has the confidence to remain devoted these issues in her work at Goddard. To help him understand the role diversity and inclusion plays in NASA’s mission, Matt Ritsko thinks of the proj-

ect team as the perfect model for scientific achievement through teamwork and unity.

“These teams develop and build a spacecraft, launch it, investigate our universe, and return knowledge back home to earth, which benefits all of humanity,” he explained.

“It can be a humbling experience that allows all of us to contribute to something larger than ourselves. We end up learning more about each other on these teams and recognize that our differences can make us better as we work toward a common goal.” ■

Above: Employees learn more about diversity and inclusion activities at Goddard.

Below: Christyl Johnson introduces the Inclusion Ally initiative. Photo credits: NASA/Goddard/Bill Hrybyk







The Goddard Equal Opportunity Program Office, through the efforts of the African American Advisory Committee, sponsored an essay contest for middle and high school students.

This second annual event provided an opportunity for students to reflect on the significance of African Americans in the science, technology, engineering and mathematics fields.

Middle school students were asked to reflect on their science, technology, engineering and math dreams based on the "I Have A Dream" speech of Dr. Martin Luther King Jr. The high school students were given a different focus to consider. For example, if the Emancipation Proclamation of 1863 and the 1963 March on Washington did not occur, African Americans might not have had so many notable contributions in the STEM fields. How does this affect you today?

The first place middle school winner was Rylee Covington, a seventh grader from Pocomoke Middle School on the Eastern Shore of Maryland. Second place was awarded to Logan Godwin, an eighth grader attending Arcadia Middle School also on the Eastern Shore of Maryland.

Tenth grader Shellianne Booth from Eleanor Roosevelt High School was the first place high school winner. Second place was awarded to Ashley Ntosi, an eleventh grader also from Roosevelt. All contest entries were received from students attending schools in surrounding counties of the Greenbelt and Wallops facilities of Goddard.

"Again this year were we impressed with the quality of the entries," said Torry Johnson, AAAC member and coordinator of the contest. "These entries are proof that there are some within our next generation that are doing great work."

The first place winners were awarded a Kindle Fire electronic tablet and second place winners received a Kindle Touch e-reader. Winners also received a tour of the Greenbelt and Wallops campuses. Representatives from the Sigma Space Corporation presented the awards. ■

Above: Left to right: Eric Booth with daughter Shellianne Booth, and Ashely Ntosi with her parents Geoffrey and Rita Ntosi.

Above right: Left to right: Jeffrey Newcomer of Sigma Space Corporation, Rylee Covington, Logan Godwin, Cheryl Johnson, AAAC vice-chair and Bill Wrobel, facilities director



## REFLECTIONS ON AFRICAN AMERICANS AND STEM

By: Dewayne Washington



Setting two world records in two consecutive months, NASA's Goddard Space Flight Center helped share some of NASA's amazing accomplishments. The awards highlight the tremendous amount of work by many of our engineers, scientists and communicators.

At the Landsat Data Continuity Mission launch, the first of these two world records was announced. During the LDCM social on Feb. 10, 2013, the LDCM team announced Landsat 5 set the Guinness World Record for "Longest-operating Earth observation satellite." Outliving its three-year design life, Landsat 5 delivered high-quality, global data of Earth's land surface for 28 years and 10 months.

NASA launched Landsat 5 from Vandenberg Air Force base in Lompoc, Calif. on March 1, 1984. Landsat 5 was designed and built at the same time as Landsat 4 and carried the same two instruments: the Multispectral Scanner System and the Thematic Mapper.

Managed by the U.S. Geological Survey as part of the Landsat Program, Landsat 5 completed over 150,000 orbits and sent back more than 2.5 million images of Earth's surface. On Dec. 21, 2012, USGS announced Landsat 5 would be

decommissioned in the coming months after the failure of a redundant gyroscope. The satellite carries three gyroscopes for attitude control and needs two to maintain control.

Then on March 10, 2013, 526 space enthusiasts gathered to set the record for "Largest Astronomy Lesson" in Austin, Texas at the South by Southwest festival. Looking up through hundreds of colored filters and spectral glasses, participants were instructed on the lawn of the Long Center for the Performing Arts.

In cooperation with the Science, Technology, Engineering and Mathematics Education Coalition, NASA, the Space Telescope Science Institute and Northrop Grumman organized the record-breaking event that was arbitrated by the Guinness World Records organization. In breaking this record, instructors aimed to shine a light on the importance of astronomy with the full-scale model of the James Webb Space Telescope as their backdrop. ■

Above: A record 526 participants gather in front of the full-scale model of the James Webb Space Telescope for an outdoor astronomy lesson at South by Southwest. Photo credit: Northrop Grumman/Alex Evers

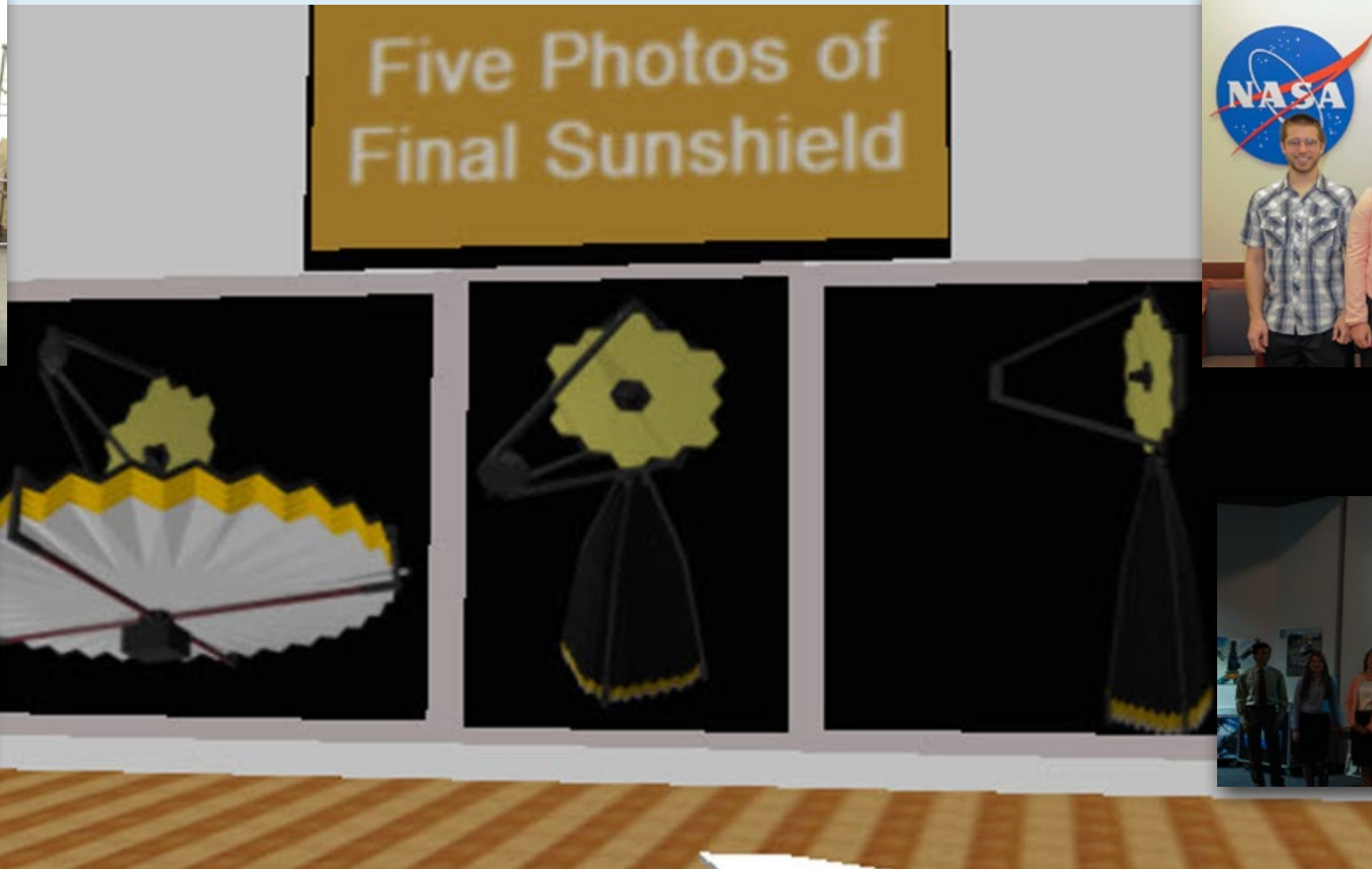
## GODDARD HELPS SET NOT ONE, BUT TWO GUINNESS WORLD RECORDS

By: Laura Betz  
Volume 9 Issue 7 • June 2013



# NEXT GENERATION ENGINEERS AND SCIENTISTS STUDY A NEXT GENERATION TELESCOPE

By: Maggie Masetti



Another school year has come and gone—as has another RealWorld/InWorld Engineering Design Challenge, this year sponsored by the James Webb Space Telescope. RWIW is a science, technology, engineering, and mathematics project, developed by teacher Sharon Bowers, which allows teams of middle and high school students to solve engineering problems rooted in real life.

The Real World portion of RWIW takes place in the classroom. At the end of that unit, students can elect to move into a virtual world much like Second Life. The cool thing about the InWorld portion of this project is that the student teams don't have to be geographically located in the same place. In fact, when the winning team came to Goddard to present their project, it was actually the first time they'd presented it while all being in the same room together. One of the other finalist teams was spread out all over the U.S. as well as having a team member in Germany.

In this year's RWIW challenge, teams chose between coming up with new mirror or a new sunshield design for the James Webb Space Telescope, as well as an associated spin-off technology. The winning team chose to develop a sunshield design, and their spinoff was a starshield.

During the winter and spring, there were InWorld Q&A's with James Webb Space Telescope project members, and the presentation and evaluation of the six finalist teams' projects. The winning team of students came to Goddard to present their work and tour the center facilities.

The winning team, which consisted of high school juniors and seniors participating in the NASA INSPIRES program, included: Abigail Radford of Ashville, N.C.; Joshua Dijamco of Jackson, N.J.; Jonathan Hernandez of Elizabeth, N.J.; Katherine Denner of Horsham, Pa. and Jim Gerard of Merritt Island, Fla.

On arrival at Goddard, they started off their day meeting Center Director Chris Scolese. They also met with Nobel Laureate and Webb Telescope project scientist John Mather, and presented their project to an audience that included Dr. Mather.

"Before, I had a great interest in computer science, especially when I took an online course learning python. However, with the experience I had with RealWorld/InWorld, it changed my perspective of engineering and has influenced me to take a career in engineering. The experience that I had in RealWorld/InWorld has had an impact on my interest. I never thought that engineering would be this fun and to do it without anybody in your team near you just makes it even bigger of a challenge. Engineering to me is that entire process from making a design to getting the prototype out and with RealWorld/InWorld, it has given me a taste of that. I really enjoyed it and it has increased my knowledge of the exciting wonders of engineering and how unexpected it can be," said Jonathan Hernandez, Year 3 winning team.

"RWIW solidified my interest in engineering. It has also made me start to seriously consider aerospace engineering, which previously I just dismissed as rockets. It's shown me how broad the field is, and how much goes into spacecraft design. I think I now have a much better idea of engineering than before, and much stronger conviction to become an engineer," said Kate Denner, Year 3 winning team.

The feedback from students who have been involved with RWIW show the impact this program has and how it is inspiring our next generation of engineers and scientists. We hope to be able to participate in RWIW again next year. ■

Photo credits: NASA/Goddard/Maggie Masetti and Pat Izzo, Darryl Mitchell and the National Institute of Aerospace.



# OUTSIDE GODDARD

By: Elizabeth M. Jarrell

## BOLLYWOOD BOUND

**A**fter a twenty-five year silence, web developer Urmila Prasad formed the area's first professional group to perform live Indian music. It was her dream come true.

Born in the state of Bihar, India, Prasad was drawn to music since childhood. "As a child, I always loved singing and sang at home and in school," said Prasad. "Any time we had a break at school, we'd go outside, sit on the lawn and my friends would ask me to sing Bollywood songs, which are a lot of love songs and pop songs written in Hindi or Urdu with a few English words here and there."

Her conservative family did not approve, which was in keeping with the societal norm at that time. "Growing up, my family discouraged me from singing or dancing in public. I could sing at temple or at home, but only devotional songs. Things are very different now," said Prasad with a smile.

The conservative societal norm extended to marriage. "Everyone in India at that time had arranged marriages and so did I," says Prasad. After her marriage, she did not sing at home or in public for the next 25 years.

Prasad came to the United States with her husband and three children when she was twenty. She had never spoken English before, but learned when she joined the International Student Wives' Club at her husband's university. She later joined the local Indian Cultural Coordination Committee, which celebrates Indian cultural events with singers and dancers. She eventually became the ICC's first woman president.

She started working at Goddard in 1981, where she became inspired by some of her Indian colleagues. "We got together for Thanksgiving in 1989 and began singing spontaneously. I was overwhelmed," she said. The following year, they formed a singing group called Tarang. Her basement became their studio.

"'Tarang' means 'wave' and we wanted to create musical waves within our community," explains Prasad. "We were the first Indian singing group in this area." Her husband was initially uneasy about her rediscovered hobby, but she was determined. He now helps operate the sound system for their performances. The group consists of six people - a male soloist; Prasad, who is the female soloist and manager; a drummer; a keyboardist; a guitarist, and a tabla or Indian drum player.

"When I came to this country, I did not think I would sing again," says Prasad. "Singing again after silence for so many years was like a dream come true," said Prasad. "I have not stopped singing since. It is heaven for me."

The group practices every Friday night have paid off well. "Once people found out about us, they invited us to perform regularly," says Prasad. "We became a professional group." The group has performed in Maryland; Virginia; Washington, D.C.; Pennsylvania; New Jersey; New York and North Carolina. They have also performed many times at the Indian Embassy, often singing patriotic songs.



"Our group sings in six different Indian languages," said Prasad. "There is nothing more exciting than hearing your language in a foreign country."

The group has always been actively involved in fundraising. They have raised money for victims of a massive earthquake in India, for Indian temples and for other community causes. "We help our community whenever there is a need. At the same time, we put on big shows and get remunerated. We're a very popular group within the Indian community," said Prasad.

She hopes to produce a CD and to become a Bollywood playback singer. Bollywood is a huge, highly competitive industry, producing many movies which are popular all over the world. "In India, every Bollywood movie is a musical with

at least five or six songs. The lead actors cannot sing, so songs are recorded by playback vocalists who become as famous as the actors in India. They are well-paid and very busy. I would love to be a playback singer, but you need to be in India to do this," said Prasad.

Her daughters did not have access to Indian music growing up, but thanks in large part to Prasad, her granddaughters sing Bollywood and American songs. Prasad and her granddaughters have even performed together at celebrations of India's Independence Day and other Indian festivals. Looks like the Prasad family is Bollywood bound. ■

Center: Prasad performing in Richmond, Va. Photo provided by Urmila Prasad